



**Sorama**  
make sound insightful

**SORAMA CAM1K** Specification sheet



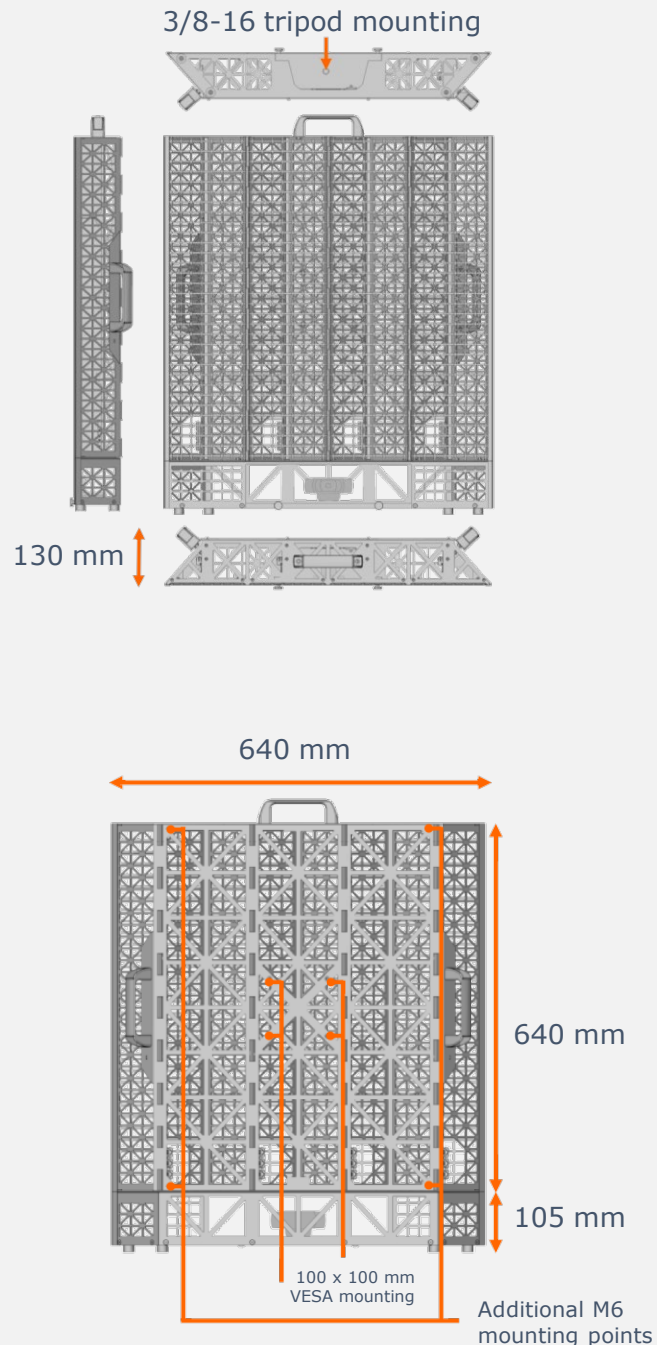
## SORAMA CAM1K

The CAM1K is the top-of-the-line product in the Sorama assortment of sound cameras. An ideal tool for each company with focus on optimized noise-performance of their products. The visual insights make it easy to interpret and explain causes of noise and vibration. We enable fast and efficient ways to improve sound design.

The benefits of the CAM1K are in its size. Far-field beam-forming already starts at 50 Hz and the larger microphone array gives a better resolution of sound-sources. Near-field acoustic holography is up to 30 times faster than other cameras, including our own CAM64. Sorama CAM1K is the ultimate tool for NVH-engineers working on OEM-products.

### Main specifications:

- Far Field beamforming: 50Hz and up with *optimal conditions* at 300Hz - 15kHz
- Near Field Acoustic Holography: frequency range 25 Hz - 23.400 Hz
- 1024 microphones, 64 x 64 cm array size
- Integrated HD video camera



## Physical Properties

Size	640x785x130 mm	LxWxD
Weight	5.5 kg	
Connection	Ethernet and Power over Eth.	IEEE 1588V2 sync IEEE 802.3af-2003 PoE

## Acoustic Properties

# of microphone channels	1024	Parallel sampling
Frequency range	1 Hz – 20 kHz	$\Delta f = 1 \text{ Hz}$
Spatial resolution	20 mm	Inter sensor distance
Measurement area	640 x 640 mm	

## Microphones

Type	MEMS	Embedded ADC with PDM
SNR (A-weighted, at 1 kHz)	63 dB per channel	Max. 93 dB for device
Sensitivity	-26 dBFS +/- 1.5dB	At 1 kHz, 94 dB SPL
Acoustic Overload Point	116 dB SPL	At 1 kHz, <10% THD

## Measurement Features

Spectrum Analysis	SPL 1 Hz – 20 kHz	dB/dB(A) SPL, $\Delta f = 1 \text{ Hz}$
Spectrogram Analysis	0-10s+, 0-20 kHz	Streaming + recording
Beamforming (far-field)	50 Hz – 20 kHz*	Streaming + recording
NAH (near-field)	1 Hz – 20 kHz	Stationary + transient

Minimum system requirements	Near-Field Acoustic Holography	Beamforming (streaming)
Operating system	Windows 7, 64 bits	Windows 7, 64 bits
Processor	Intel i5 (2014 gen) or comparable	Intel i5 (2014 gen) or comparable
Memory	4 GB RAM	4 GB RAM
Graphics card	Integrated GPU	Integrated GPU
Screen resolution	1280 x 720 pixels	1280 x 720 pixels
Connections	1 x free ethernet port (or USB 2 or 3 dongle) Working internet connection	1 x free ethernet port (or USB 3 dongle) Updates require internet connection
Disc space	Typical recording requires 500 MB	

\* Dependent on external factors